

POLYMER MATERIALS FOR USE IN AN ELECTRODE

Abstract of the Disclosure

A carbonyl aromatic polymer electrode material, suitable for use as both positive and negative

5 electrodes in electric storage devices, is disclosed. The polymers contain at least one unit having at least one cyclopentanone structure condensed with at least two aromatic rings. Exemplary carbonyl aromatic polymers include polymers containing units of 9-fluorenone, cyclopenta[*def*]fluorene-4,8-dione, and benzo[*b*]fluoren-11-one. The carbonyl structure in the polymers make them very effective electrode materials which can also be anion or cation doped to increase their performance
10 further. In addition, the polymers are proton or hydroxide anion mediators which makes them also suitable for use in electrodes in fuel cells.

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